



## PATENT ABSTRACTS OF JAPAN

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## (54) ROTOR FOR SALIENT POLE TYPE ROTARY ELECTRIC MACHINE

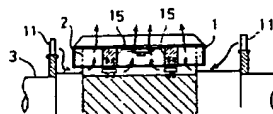
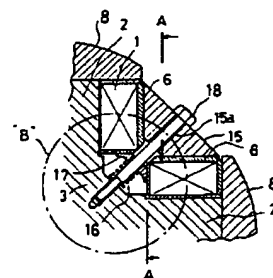
## (57) Abstract:

**PURPOSE:** To facilitate assembling works and improve cooling effect by a method wherein a push plate and a spring for pushing the push plate up are arranged below a field coil while a bolt, penetrated through a coil bracket and screwed into a yoke, is penetrated through the push plate and the spring.

**CONSTITUTION:** When a coil bracket 15 is clamped by a bolt 18 to a yoke 3, inclined surfaces on both sides of the coil bracket 15 push a field coil 1. On the other hand, a push plate 17 pushes up the field coil 1 through the resilient force of a spring 16 and, therefore, the field coil 1 is supported without being affected by the finishing condition of the same. The spring 16 and the push plate 17 are provided below the field coil 1 whereby a space is formed, the space becomes an air passage inducing cooling air to make the cooling air flow through the air passage by a self fan 11 and much

more cooling air is supplied. According to this method, assembling works is facilitated and cooling effect improved.

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## (54) SALIENT POLE TYPE ROTOR

## (57) Abstract:

**PURPOSE:** To preferably cool a field coil by providing a vent barrier for guiding supplied air from the rim side of a rotor to a gap between adjacent coil rims of the coil, thereby strongly ventilating the supplied air via the barrier to the bar for ventilation.

**CONSTITUTION:** The sectional shape of a field coil 1 is formed to be alternately telescoped to the outer peripheral surface 1a side and the inner peripheral surface side 1b in a irregular shape. A block 3a of an insulator is provided between core side insulators 3 of the inner peripheral surface 1b and the outer periphery of the body of the core 2 to secure the coil 1 and the core 2. The portion having no block 3a is formed as an air gap 4 for ventilation. A plurality of vent ducts 5 are provided to communicate with the gap 4 at the chip of the core 2. A coil rim gap 4a which communicates with the gap 4 is formed between the rim side end 1e of the coil 1 and the rim 6 of the rotor. An arcuate-shaped vent barrier 7 is formed in an entire axial length in contact with the end faces 1c, 1c of the rim sides of the

adjacent coils 1, 1. In this manner, the inner peripheral surface of the field coil can be sufficiently cooled without disturbing the ventilating cooling of the outer peripheral surface of the field coil.

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